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Docket No.: HT3915USNA

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REMARKS

The present amendment inserts a limitation into claim 1 directed to the flame retardant cellulose fiber. The definition of this fiber is 'FR rayon, FR acetate, FR triactate, FR lyocell and fiber which contains silicon dioxide in the form of polysilicic acid in a cellulose supporting structure. Furthermore, claim 1 is amended to recite a proviso of "not more than 40 percent by weight of the blend contains silicon dioxide, if present". Antecedent support is present for the new limitations on page 5, lines 5-32.

Claims 2-20 are dependent claims, and narrow the limitations of claim 1.

Claims 1-20 remain under consideration.

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DOUBLE PATENTING REJECTION

All claims 1-20 have been rejected based on obviousness double patenting with citation of copending application No. 10/629,299 in view of Edwards GB 2152542A.

Although No. 10/629,299 and the present application were filed on the same day, such that no timewise extension would be applicable, pursuant to normal prosecution and timely responses by the USPTO, nevertheless the double patenting rejection is traversed.

The claimed subject matter in both applications is common for an aramid staple fiber and a polyamide staple fiber. However, the applications differ in 10/629,299 requiring a modacrylic fiber while the present application requires specific classes of flame retardant cellulosic staple fibers as defined in the previous section of this amendment.

To cure the deficiencies of 10/629,299 the Office rejection turns to Edwards GB 2152452A. Edwards on page 1, lines 32-37 sets forth the following:

The invention comprises a fire retardant fabric comprising a mixture of three different fibres each of which is selected from a different one of the group consisting of aramid fibre, modacrylic fibre, fire retardant polyester fibre and fire retardant viscose fibre.

Thus, Edwards sets forth a teaching to pick three out of the four fiber categories of:

- aramid
- modacrylic
- fire retardant polyester
- fire retardant viscose.

Accordingly, in comparison to the present claims, 2 of the 4 fibers of Edwards are not named, namely modacrylic and polyester. Replacing the modacrylic of 10/629,299 in accordance with Edwards still requires the polyester of Edwards.

The combination of publications is different and, accordingly, removal of the double patenting rejection is proper.

REJECTIONS UNDER 35 USC 102(b)

Claims 1-4, 9 and 10 stand rejected under 35 USC 102(b) based on Green USP 4,920,000. In response to this full anticipation rejection, Green does not disclose a combination of staple fibers of aramid, flame retardant cellulosic fibers (as now claimed) and polyamide.

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Claims 1-4 and 9-14 stand rejected under 35 USC 102(b) based on Fleming et al. USP 5,468,545. This patent does not disclose combination of staple fibers of aramid, flame retardant cellulosic fibers (as now claimed) and polyamide.

REJECTION UNDER 35 USC 103(a)

Claims 11-14 stand rejected under 35 USC 103(a) based on Green USP 4,920,000. The obviousness rejection has been applied based on obviousness in "fabric basis weight".

In reply, Green does not disclose or render obvious the specific named fibers required in the present amended claims. Accordingly, Green is not pertinent.

Claims 1-4 and 9-14 stand rejected under 35 USC 103(a) based on Edwards GB 2152542A2 in view of Green or Fleming et al.

Initially, it is noted that this rejection is not applicable to dependent claims 5 to 8 directed to an added limitation of flame retardant rayon (claim 5), and cellulose fiber containing silicon dioxide (claims 7 and 8). [These claims also require poly(metaphenylene isophthalamide) but this limitation is stated present in Edwards.]

As previously set forth in traversal of the double patenting rejection, Edwards requires 3 of the 4 following list:

- aramid
- modacrylic
- fire retardant polyester
- fire retardant viscose.

Therefore, in order to meet the requirements of the present claims, one of ordinary skill in the art must choose 2 of the 4 components namely aramid and fire retardant viscose and then choose another fiber component. The Office rejection acknowledges this deficiency in the wording "However Edwards fail to teach adding nylon fibers to the fiber blend".

To cure this deficiency the Office rejection turns to Green or Fleming et al. Green is cited to disclose:

- 15-50% flame retardant aramid
- at least 30% cellulose component
which can be fire retardant
- 5-20% nylon fiber.

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The Office rejection states "the nylon component is added to the fiber blend to provide soft surface abrasion without a significant loss of softness and dryness".

The rejection under 35 USC 103(b) is summarized:

Therefore, it would have been obvious to one having ordinary skill in the art to add 5 – 20% of a nylon fiber component as taught by Green or Fleming et al. to the fire-retardant blend disclosed by Edwards to produce a fire retardant fabric with good wear and heat resistance that is also inexpensive, comfortable and flexible. Further, it would have been obvious to one having ordinary skill in the art to use 5-30% by weight of an aramid fiber as disclosed by Green or Fleming et al. in the blend taught by Edwards since the aramid is more expensive than fire retardant viscose and produces stiffer yarns. Thus, claims 1 - 4, 9 and 10 are rejected.

The deficiencies of Green have been previously noted. Fleming et al. are directed to a cotton/thermoplastic fiber blend which is not applicable. Furthermore, the Office position sets forth use of 5-30% by weight "in the blend taught by Edwards since the aramid is more expensive than fire retardant viscose and produces stiffer yarns". A position of substitution based on expense and stiffness is pure conjecture and unsupported". The final properties of a fabric are a requirement and the introduction of changing properties, such as due to expense, is an unsupported statement of the Office position.

To cure the lack of the publications meeting the weight requirements of the present claims, the Office position is:

Further, Edwards fails to teach the basis weight of the finished fabric. However, it would have been obvious to one having ordinary skill in the art at the time the invention was made to choose a fabric basis weight, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. *In re Aller*, 220 F.2d 454, 105 USPQ 233 (CCPA 1955). One of ordinary skill in the art would be motivated to choose a fabric which would be light and comfortable to wear while also producing a fabric which is sufficiently heavy enough to protect the user for fire and related dangers. Therefore, claims 11 – 14 are rejected.

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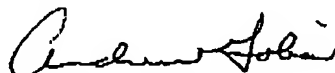
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The Office position of a balance or properties of light and comfortable vs heavy enough to protect the user from fire and related dangers is another position based on conjecture and unsupported.

Reconsideration and removal of this grounds of rejection is proper.

In summary, the present claims have been amended. Traversal of all grounds of rejection has been made. A notice of allowance is solicited.

Respectfully submitted,



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